

MATH 251 • Fall 2013 • Prof. Goonetilleke's Sections (25,26,27)

Lecture Date	Sections	Homework
Wednesday, September 04	12.1 Vectors in the Plane	12.1# 5, 9, 11, 15, 21, 39, 45
	12.2 Vectors in Three Dimensions	12.2# 11, 13, 19, 25, 27, 33, 53
Monday, September 09	12.3 Dot Product and Angle Between Two Vectors	12.3# 1, 13, 21, 29, 31, 66, 71, 75
	12.4 The Cross Product	12.4# 1, 5, 11, 15, 19, 22, 39, 41
Wednesday, September 11	12.5 Planes in Three-Space	12.5# 1, 10, 13, 17, 27, 33, 51
Monday, September 16	13.1 Vector-Valued Functions	13.1# 4, 7, 15, 21
	13.2 Calculus of Vector-Valued Functions	13.2# 4, 10, 27, 28, 31, 45, 50
Wednesday, September 18	13.3 Arc Length and Speed	13.3# 3, 11, 14, 18
	13.4 Curvature	13.4# 3, 17, 19, 23
	13.5 Motion in Three-Space	13.5# 3, 6, 32
Monday, September 23	14.1 Functions of Two or More Variables	14.1# 7, 19, 20, 23, 29, 30
	14.2 Limits and Continuity in Several Variables	14.2# 7, 15, 22, 29
Wednesday, September 25	14.3 Partial Derivatives	14.3# 3, 19, 22, 33, 49, 54, 55, 57
	14.4 Differentiability, Linear Approx. Tangent Planes	14.4# 1, 7, 15, 21, 25, 32
Monday, September 30	14.5 The Gradient and Directional Derivatives	14.5# 7, 13, 27, 31, 33, 38, 39, 44
Wednesday, October 02	14.6 The Chain Rule	14.6# 1, 5, 7, 13, 24, 27, 37, 39
Monday, October 07	14.7 Optimization in Several Variables	14.7# 1, 3, 10, 19, 21, 28, 31, 32
Wednesday, October 09	14.8 Lagrange Multipliers	14.8# 2, 7, 11, 13, 15
Monday, October 14	Exam 1	
Wednesday, October 16	15.1 Integration in Several Variables	15.1# 12, 17, 27, 29, 41, 43, 45
Monday, October 21	15.2 Double Integrals over More General Regions	15.2# 3, 5, 11, 21, 27, 32, 33, 41, 43,49
		15.5# 1
Wednesday, October 23	15.3 Triple Integrals	15.3# 3, 5, 9, 15, 19, 21, 35
Monday, October 28	12.7 Cylindrical and Spherical Coordinates	12.7# 1, 5, 23, 35, 42, 53, 59
	15.4 Integration in Polar, Cylindrical, and Spherical	15.4# 1, 5, 13, 17, 22,23,27,33,41,47,49
Wednesday, October 30	15.4 (Continued)	15.5# 21, 28
Monday, November 04	15.6 Change of Variables	15.6# 1, 5, 14, 15, 21, 29, 33, 37
Wednesday, November 06	16.1 Vector Fields	16.1# 1, 3, 10, 15, 25, 31
Monday, November 11	16.2 Line Integrals	16.2# 3, 15, 21, 23, 35, 37, 41, 43
Wednesday, November 13	16.3 Conservative Vector Fields	16.3# 1, 5, 9, 11, 15, 21, 22
Monday, November 18	Exam 2	
Wednesday, November 20	16.4 Parameterized Surfaces and Surface Integrals	16.4# 1, 5, 8, 11, 13, 17, 23
Monday, November 25	16.5 Surface Integrals of Vector Fields	16.5# 1, 6, 9, 12, 15, 17, 23
Wednesday, November 27	17.1 Green's Theorem	17.1# 1, 3, 6, 9, 13, 23, 25
Monday, December 02	17.2 Stokes' Theorem	17.2# 1, 5, 9, 11, 21, 23
Wednesday, December 04	17.3 Divergence Theorem	17.3# 1, 5, 7, 9, 13, 16, 17
Monday, December 09	Applications of vector analysis. Catch up & review	